1. A method to form a magnetic write head for high track density applications, comprising:

providing a lower pole piece that further comprises a write-coil in a coil well, said coil well being filled with insulation and having a top surface;

depositing on said top surface a seed layer having a magnetic moment of at least 24 kilogauss;

forming, in said seed layer, a trench that extends down as far as said top surface and that has sloping sidewalls;

just filling said trench with a layer of a non-magnetic metal;

forming, a photoresist mold whose floor is said top surface and then electroplating, a write gap layer on said floor whereby said write gap layer overlaps both said seed layer and said layer of a non-magnetic metal;

then forming, through electroplating onto said write gap layer, an upper pole piece and then removing all photoresist; and

forming a back gap piece that is in magnetic contact with said seed layer and with said upper pole piece and that does not overlap said write gap layer.

2. The method described in claim 1 wherein said seed layer is selected from the group consisting of CoFeN and CoFe.

3. The method described in claim 1 wherein said seed layer is deposited to a

thickness between about 1,000 and 5,000 Angstroms.

4. The method described in claim 1 wherein said layer of non-magnetic material is selected from the group consisting of Ru, NiCu, Cu, and NiCr.

5. The method described in claim 1 wherein said write gap layer is selected from the group consisting of NiPd and NiP.

6. The method described in claim 1 wherein said write gap layer is deposited to a thickness between about 700 and 1,500 Angstroms.

7. The method described in claim 1 wherein said upper pole piece is CoNiFe.

8. The method described in claim 1 wherein said upper pole is deposited to a thickness between about 2 and 4 microns.

9. A process to manufacture a planar magnetic write head, comprising:

providing a lower magnetic shield layer;

forming a disc of dielectric material on said lower magnetic shield a layer;

forming, on said disc, a lower coil;

depositing and then patterning a first layer of ferromagnetic material to form a

bottom section of a lower pole, having a top surface, that includes a centrally located lower trench on whose floor rest said dielectric disc and lower coil;

overfilling said lower trench with a first layer of insulating material and then planarizing so that said filled trench has an upper surface that is coplanar with the upper surface of said lower pole bottom section;

depositing, and then patterning, a second insulating layer to form a first lid that fully covers said lower coil and said lower trench;

forming, on said first lid, an upper coil;

depositing and then patterning a second layer of ferromagnetic material thereby completing formation of the lower pole, including a top surface and a centrally located upper trench on whose floor rest said first lid and said upper coil;

depositing on said top surface a seed layer having a magnetic moment of at least 24 kilogauss;

forming, in said seed layer, a trench that extends down as far as said top surface and that has sloping sidewalls;

just filling said trench with a layer of a non-magnetic metal;

forming, a photoresist mold whose floor is said top surface and then electroplating, a write gap layer on said floor whereby said write gap layer overlaps both said seed layer and said layer of a non-magnetic metal;

then forming, through electroplating onto said write gap layer, an upper pole piece and then removing all photoresist; and

forming a back gap piece that is in magnetic contact with said seed layer and with said upper pole piece and that does not overlap said write gap layer.

10. The process recited in claim 9 wherein said lower magnetic shield layer is a top shield of a magnetic read head.

11. The process recited in claim 9 wherein said seed layer is selected from the group consisting of CoFeN and CoFe.

12. The process recited in claim 9 wherein said seed layer is deposited to a thickness between about 1,000 and 5,000 Angstroms.

13. The process recited in claim 9 wherein said layer of non-magnetic material is selected from the group consisting of Ru, NiCu, Cu, and NiCr.

14. The process recited in claim 9 wherein write gap layer is selected from the group consisting of NiPd and NiP.

15. The process recited in claim 9 wherein said write gap layer is deposited to a thickness between about 700 and 1,500 Angstroms.

16. The process recited in claim 9 wherein said upper pole piece is CoNiFe.

17. The process recited in claim 9 wherein said upper pole is deposited to a thickness between about 2 and 4 microns.

18. A magnetic write head for high track density applications, comprising:

a lower pole piece that further comprises a write-coil in a coil well, said coil well being filled with insulation and having a top surface;

on said top surface, a seed layer having a magnetic moment of at least 24 kilogauss;

in said seed layer, a trench that extends down as far as said top surface and that has sloping sidewalls;

said trench being just filled with a layer of a non-magnetic metal;

a write gap layer on said seed layer that also overlaps said layer of a non-magnetic metal;

an upper pole piece on said write gap layer; and

a back gap piece that is in magnetic contact with said seed layer and with said upper pole piece and that does not overlap said write gap layer.

19. The write head described in claim 18 wherein said seed layer is selected from the group consisting of CoFeN and CoFe.

20. The write head described in claim 18 wherein said seed layer has a thickness between about 1,000 and 5,000 Angstroms.

21. The write head described in claim 18 wherein said layer of non-magnetic material is selected from the group consisting of Ru, NiCu, Cu, and NiCr.

22. The write head described in claim 18 wherein write gap layer is selected from the group consisting of NiPd and NiP.

23. The write head described in claim 18 wherein said write gap layer has a thickness between about 700 and 1,500 Angstroms.

24. The write head described in claim 18 wherein said upper pole piece is CoNiFe.

25. The write head described in claim 18 wherein said upper pole has a thickness between about 2 and 4 microns.

26. A planar magnetic write head, comprising:

a lower magnetic shield layer;

a disc of dielectric material on said lower magnetic shield a layer;

a lower coil on said disc;

a first layer of ferromagnetic material that forms a bottom section of a lower pole, having a top surface, that includes a centrally located lower trench on whose floor rest said dielectric disc and lower coil;

a first layer of insulating material that just fills said lower trench and that has an upper surface that is coplanar with the upper surface of said lower pole bottom section;

a second insulating layer that forms a first lid that fully covers said lower coil and said lower trench;

an upper coil on said first lid;

a second layer of ferromagnetic material that sits atop said bottom section, having a top surface and a centrally located upper trench on whose floor rest said first lid and said upper coil;

on said top surface a seed layer having a magnetic moment of at least 24 kilogauss;

a trench in said seed layer that extends down as far as said top surface and that has sloping sidewalls;

said trench being just filled with a layer of a non-magnetic metal;

a write gap layer that contacts overlaps both said seed layer and said layer of a non-magnetic metal;

an upper pole piece on said write gap layer; and

a back gap piece that is in magnetic contact with said seed layer and with said upper pole piece and that does not overlap said write gap layer.

27. The write head described in claim 26 wherein said lower magnetic shield layer is a top shield of a magnetic read head.

28. The write head described in claim 26 wherein said seed layer is selected from the group consisting of CoFeN and CoFe.

29. The write head described in claim 26 wherein said seed layer has a thickness between about 1,000 and 5,000 Angstroms.

30. The write head described in claim 26 wherein said layer of non-magnetic material is selected from the group consisting of Ru, NiCu, Cu, and NiCr.

31. The write head described in claim 26 wherein write gap layer is selected from the group consisting of NiPd and NiP.

32. The write head described in claim 26 wherein said write gap layer has thickness between about 700 and 1,500 Angstroms.

33. The write head described in claim 26 wherein said upper pole piece is CoNiFe.

34. The write head described in claim 26 wherein said upper pole is deposited to a thickness between about 2 and 4 microns.